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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/336,741 06/21/99 CHING

S X/P6396US0

000881

TM02/0913

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ALEXANDRIA VA 22314

EXAMINER

HEWITT II, C

ART UNIT

PAPER NUMBER

2161

DATE MAILED:

09/13/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/336,741

Applicant(s)

CHING, SHERMAN

Examiner

Calvin L Hewitt II

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,6,7,9.                      6) ☐ Other: \_\_\_\_\_

***Status of Claims***

1. Claims 1-41 have been examined.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites, "... applicant to amend information previously returned by said applicant". Similarly, in claim 21, "... said applicant", is able to, "... display or transmit to [said] applicant some or all of said information and/or status of said applicant". The Examiner requires additional data and/or an explanation as these claims are unclear.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-41 rejected under 35 U.S.C. 103(a) as being unpatentable over Norris, U.S. Patent No. 5,870,721 in view of Fraser et al., U.S. 5,995,947 and Dipaolo et al. U.S. Patent No. 5,367,619.

As per claims 1-41, Norris teaches a loan processing system that:

- allows applicants to input data into a system (figure 1; column 2, lines 51-65; column/line 7/55-8/10)
- sends the data over a communications network (column/line 7/55-8/10)
- allows lenders to view and analyze the data in order to make a decision on the application (column/line 6/21-7/4; column/line 7/55-8/10; column 8, lines 10-54)
- provides an applicant with the status or an assessment of the application (column/line 6/21-7/4; column/line 7/55-8/10; column 8, lines 28-53)
- display means (figure 1, item 34; column 6, lines 46-67; column/line 7/55-8/10)
- obtains additional information from external sources purposes of analyzing the applicant's data (figure 1, items 14 and 16; column 4, lines 48-56; column 6, lines 46-51; column 7, lines 55-65)
- uses a neural network to render a decision as to whether or not to grant a loan to an applicant (column 6, lines 20-50; column 8, lines 10-60)

- allows an application to be rejected based on partial analysis (column 8, lines 1-10)

Norris teaches that an applicant can request assistance (column 7, lines 46-54) and that a lender can assist an applicant (column 8, lines 15-22). Therefore, it would have been at least obvious for one of ordinary skill of the art to allow the lender providing assistance to view the inputted data in order to better help the applicant. Also, as Norris teaches that his system can be implemented on a PC it would have been obvious to provide software so that it can be run from home or office (column 8, lines 10-21).

Norris does not explicitly teach forms, remote display means and form sequencing and data rules. In addition, Norris does not disclose bidding. Dipaolo et al. teach a data entry system consisting of a plurality of electronic forms with data control ('619, abstract; figures 1 and 2). While, Fraser et al. teach an interactive loan trading system where a loan application can be modified ('947, column 3, lines 46-53; column 8, lines 24-28) and is accessible and selectively presented on remote lender computers in order for lenders to select, review and bid on loan applications ('947, figure 1; column 2, lines 21-31; column 7, lines 5-20; column 12, lines 26-67; column 13, lines 3-8 and 34-48). Fraser et al. also allow bids to be accepted (column 13, lines 42-47). Therefore, it would have been obvious to combine the teachings of Norris, Fraser et al. and Dipaolo et al.

As in the real world, [electronic] forms are useful for data entry in order to except, present and if necessary print data in an efficient and organized manner.

Therefore, it would have been obvious to present successive forms for data entry if a large amount of data is expected on the part of a user ('619, column 1, lines 32-35). In regard to successive forms, Dipaolo et al. also teach a system for additional form presentation based on the input of a parent form ('619, column 2, lines 22-42; column 3, lines 13-33; column 4, lines 24-45). Dipaolo et al. teach a data entry system using forms for a digital computer to assure that only complete, consistent and valid data entries are made in accordance with the expert system rule-base ('619, abstract). Therefore it would have been obvious to provide the validation rules in order to improve the analysis of the system and limit the instances where the neural network analysis is inconclusive ('721, column 8, lines 22-29). For example, the expert system (or neural network) processor can be programmed with a validation rule to produce a subform from a parent form in order to allow a user to provide more data regarding a small but nonetheless delinquent payment that appears on a credit report. However, in the event of an inconclusive analysis, it would have also been obvious to one of ordinary skill to allow an agent to contact the applicant to inform him/her of a delay, when to expect a call from the agent, review the case, render a decision and communicate the decision to an applicant ('721, column 8, lines 22-29). A neural network (or expert system –'619, abstract ) provides for computer

learning. Hence, certain defects such as misspelled words or terms can be automatically corrected by the controller processor ('721, figure 1). The neural network system of Norris would have been an obvious addition to the teaching of Fraser et al. as lenders can use machine learning to use its own business rules for application acceptance in order to more efficiently select desirable or profitable loan profiles or produce credit metrics ('947, column 7, lines 7-23; column 12, lines 22-26). Further, as the system of Norris asks questions of an applicant for purposes of gathering data in order to make a decision, it would have been obvious for a neural network designer to modify the question asking procedure for purposes of improving neural network analysis ('721, column 6, lines 3-48; column/line 7/66-8/54) and/or reduce the number of inconclusive judgements ('721, column 8, lines 22-28).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Sinclair teaches a system for matching borrowers and lenders
- Zandi discloses a loan auction over a computer network
- Conley Jr. teaches a method and system for generating forms and managing records using indicia

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Calvin Loyd Hewitt II whose telephone number is (703) 308-8057. The Examiner can normally be reached on Monday-Friday from 8:30 AM-5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, James P. Trammell, can be reached at (703) 305-9768.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
c/o Technology Center 2100  
Washington, D.C. 20231

or faxed to :

(703) 308-9051 (for formal communications intended for entry)

or:

(703) 308-5397 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

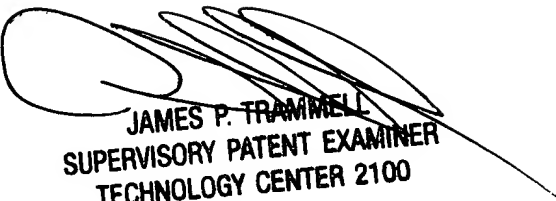


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Calvin Loyd Hewitt II

August 23, 2001



JAMES P. TRAMMELL  
SUPERVISORY PATENT EXAMINER  
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